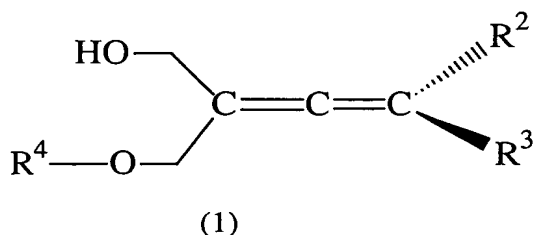
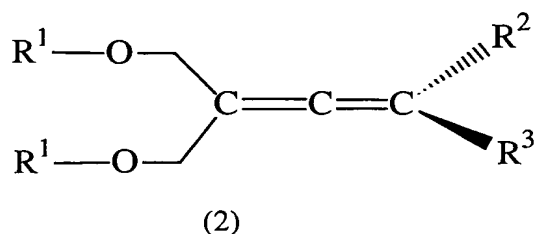


## CLAIMS

1. A process for producing an optically active allene represented by formula (1):



5 wherein  $R^2$  and  $R^3$  are different and each represents a hydrogen atom, an optionally substituted  $C_{1-20}$  alkyl group or an optionally substituted  $C_{6-20}$  aryl group, and  $R^4$  represents an acyl group, which comprises reacting an allene derivative represented by formula (2):



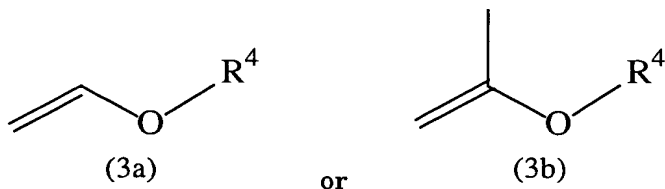
10 wherein  $R^1$  represents a hydrogen atom or an optionally substituted acyl group and  $R^2$  and  $R^3$  have the same meaning as defined above, with an acylating agent having an acyl group represented by  $R^4$  when both  $R^1$ 's are each a hydrogen atom or with water when both  $R^1$ 's are each an acyl group represented by  $R^4$ , in the presence of an enzyme catalyst.

15 2. The process for producing an optically active allene according to claim 1, wherein the enzyme catalyst is a lipase enzyme or an esterase enzyme.

3. The process for producing an optically active allene according to claim 2, wherein the enzyme catalyst is at least one member selected from the group consisting of Candida Antarctica lipase, Pseudomonas fluorescens lipase, Pseudomonas cepacia lipase, porcine

pancreatic lipase, porcine liver esterase and *Candida rugosa* lipase.

4. The process for producing an optically active allene according to any one of claims 1 to 3, wherein the acylating agent is a compound represented by:



5 wherein  $R^4$  represents an acyl group.

5. The process for producing an optically active allene according to any one of claims 1 to 4, wherein  $R^1$  is a hydrogen atom, an optionally substituted  $C_{1-20}$  alkylcarbonyl group or an optionally substituted  $C_{6-20}$  arylcarbonyl group.

10 6. The process for producing an optically active allene according to any one of claims 1 to 5, wherein  $R^2$  and  $R^3$  are different and each represents a hydrogen atom, an optionally substituted  $C_{1-10}$  alkyl group or an optionally substituted  $C_{6-10}$  aryl group.

7. The process for producing an optically active allene according to any one of claims 1 to 6, wherein  $R^2$  and  $R^3$  are different and each represents a hydrogen atom, an optionally substituted  $C_{1-4}$  alkyl group or an optionally substituted  $C_{6-8}$  aryl group.

15 8. The process for producing an optically active allene according to any one of claims 1 to 7, wherein  $R^4$  is an acetyl group, a butyryl group or a benzoyl group.